



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,797	10/18/2005	Takuya Wada	2005_1633A	6120
52349	7590	05/20/2008	EXAMINER	
WENDEROTH, LIND & PONACK L.L.P.			CHOW, LIXI	
2033 K. STREET, NW				
SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20006			2627	
			MAIL DATE	DELIVERY MODE
			05/20/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/553,797	WADA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lixi Chow	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,7 and 8 is/are rejected.  
 7) Claim(s) 3-6 and 9-12 is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 18 October 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. Figures 13-16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Suzuki (US 2002/0060883).

Regarding claims 1, 2 and 7:

AAPA discloses an optical disc driving device (see Fig. 16) including an objective lens that collects light onto an optical disc, in which the objective lens is formed to be movable in a tracking direction of the optical disc across a first region and a second region inside the first region and to be movable in a focusing direction, the optical disc driving device being characterized in that:

a limiting member (see Fig. 16, element 109) that limits displacements of the objective lens in the focusing direction is provided;

the limiting member includes a first limiting portion that limits displacements of the objective lens present within the first region while allowing a movable range of the objective lens in the focusing direction to overlap a deflection range of the optical disc within the first region (see Fig. 16; the top most position of the objective lens overlaps the deflection range); and

the disc drive device further including:

a base (see Fig. 13, element 122); and

an optical base (Fig. 13, element 110) formed to be movable in the tracking direction with respect to the base and provided with the objective lens.

AAPA fails to disclose a second limiting portion; however, Suzuki discloses a disc driving device comprising a limiting member, which includes a second limiting portion (see Fig. 3, element 360) that limits displacements of a head present within inner region in establishing a relation such that the movable range of the head in the focusing direction does not overlap a deflection range of the optical disc within the inner region; and

a controller that controls the head in such a manner that the head is located within the inner region in a non-focusing state of the head (see Fig. 3; the head is inherently in a non-focusing state when it is parked under the securing mechanism; also, the movement of the head is inherently controlled by a controller);

wherein:

the limiting member is configured to limit displacements of the head in such a manner that the movable range of the head in the second region is smaller than the movable range of the

head in a first region (see Fig. 3; the movable range of the head is restricted by the securing mechanism in the inner diameter region, whereas, the movable range of the head is not restricted by the securing mechanism outside of the inner region, i.e., first region); and

the second limiting portion is supported on a base and provided in the inner region alone (see Fig. 4).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the optical disc driving device of AAPA to further include a second limiting portion as taught by Suzuki. One of ordinary skill in the art would have been motivated to do this because the second limiting portion provided in the inner region of the disc prevents the head from being crashing into the disc surface during inactive period (see Suzuki, par. [0039]).

Regarding claim 8:

AAPA discloses the optical disc driving device, wherein:

the first limiting portion is provided to the optical base, and is configured to move integrally with the optical base between the first region and the second region (see Figs. 13 and 16).

#### *Allowable Subject Matter*

4. Claims 3-6 and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the reference of record alone or in combination discloses or suggests that **the limiting member tilts with respect to a direction orthogonal to a rotational axis of the**

**optical disc with an increasing distance from the optical disc on an inner side in the tracking direction; the limiting member has the first limiting portion and the second limiting portion that are formed in a shape of a step; the first limiting portion extends from the first region to the second region, and the second limiting portion is laid beneath the first limiting portion within the second region; a guiding shaft provided to the base to guide the optical base in the tracking direction, wherein the limiting member is supported on the guiding shaft; wherein the second limiting portion is fixed to a stator of the spindle motor; and wherein the second limiting portion is fixed to the turn table.**

*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mizuno et al. (US 2004/0202063) is cited because Mizuno et al. disclose an optical disk drive having a limiting member for limiting the movement of the optical pickup.

Kawano (US 2003/0117909) is a related art reference that teaches the control of the movement of the objective lens.

Lee (US 2002/0075773) shows an optical pickup having a latching unit for securing the optical head at a predetermined distance away from the optical disk.

Childers, III et al. (US 5,444,690) shows a media player having a leaf spring lock.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lixi Chow whose telephone number is 571-272-7571. The examiner can normally be reached on Mon-Fri, 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC 5/18/08

/Wayne R. Young/  
Supervisory Patent Examiner, Art Unit 2627